Acids and Bases Snippets

**Acid Burns**

Sulfuric acid is a very good dehydrating agent; it removes water from substances very easily. That is why it chars paper if it comes into contact. (Char (v): to blacken by burning)This property of removing water easily makes it very damaging to living tissue. It was known as oil of vitriol, and was sometimes used by jealous women to destroy the looks of their competitors for a man’s affections.

Acids, Bases and Astronauts

The astronauts of the appollo 13 space mission, faced, among other things, a serious build up of carbon dioxide on board their damaged space craft. Unless a way could be found to reduce the CO2 lavels, the astronauts quickly would have suffocated. By using lithium hydroxide containers, they were able to keep their air breathable. Lithium hydroxide reacts with CO2, producing lithium carbonate and water.

Sour Wine

In addition to its main ingredients of water, ethanol (alchol), sugars, tannins, and additives, wine also contains a variety of acids. These include tartaric, malic, lactic and succinic acids. The acidity level has to controlled carefully. Too much and the wins acquires a nasty, sour taste. Too little and the wine will “go off”.

Things that Sting

As everyone knows, bees can give very nasty stings. The painful sting is produced by the methanoic (formic) acid they inject. This is the same acid that puts the sting into stinging ants and stinging nettles. If you are stung by a stinging nettle then rubbing a leaf from a dock plant on it can bring some relief. This is because dock contains a base that neutralises the acid. Other stinging creatures, like wasps and some jellyfish inject a base into the skin of their victims. This can be neutralised by washing the wound with vinegar.